

0069473

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0561-02 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

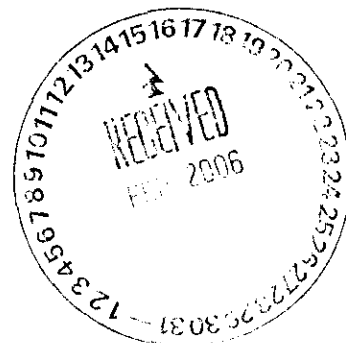
300 Area 303M Bldg

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Cover Page

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Report Identification Number: 06I-0561-02
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303MO J451
Payroll#: 73974

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
08 Feb 2006	J11601	06I04565	NMAM 7300M	G061901G	G WIPE
08 Feb 2006	J11602	06I04566	NMAM 7300M	G061901G	G WIPE
08 Feb 2006	J11603	06I04567	NMAM 7300M	G061901G	G WIPE
08 Feb 2006	J11604	06I04568	NMAM 7300M	G061901G	G WIPE

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Name: Joanna C. Sanchez
Title: Chemist
Date: February 15, 2006

Report Identification Number: 06I-0561-02
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303MO J451
Payroll#: 73974

General Set Information: There are 4 samples in set 06I-0561-02, 7 samples in set 06I-0564-01, 4 samples in set 06I-0565-01, 4 samples in set 06I-0566-01, and 5 samples in set 06I-0618-01 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.07 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None.

Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Four samples in this batch were replicated. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g/sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g/L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

Sample

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g/L}) \times (0.025 \text{ L/sample}) \times (1) = 0.025 \mu\text{g/sample}$

Miscellaneous Comments: The LOQ for sample 06I04583 for cadmium is 0.6 because of interference.



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Report Identification Number: 06I-0561-02
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303MO J451
Payroll#: 73974

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J11601	06I04565	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
J11602	06I04566	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
J11603	06I04567	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
J11604	06I04568	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.02		0.07		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

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 Subcontract Number: 0000X-BO-G0058-B-Mod#4
 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
 Laboratory Identification Number: DCHM
 SAF: RC-001 / R303MO J451
 Payroll#: 73974

Batch ID: G061901G

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241207-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241207-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-241207-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-241207-1	LCS	Beryllium	µg/sample	11.2	NA	10.0	112.	NA
QC-241207-1	LCS	Cadmium	µg/sample	34.4	NA	30.0	115.	NA
QC-241207-1	LCS	Lead	µg/sample	106.	NA	100.	106.	NA
QD-241207-1	LCSD	Beryllium	µg/sample	11.5	11.2	10.0	115.	2.94
QD-241207-1	LCSD	Cadmium	µg/sample	35.4	34.4	30.0	118.	2.68
QD-241207-1	LCSD	Lead	µg/sample	109.	106.	100.	109.	2.66

MB - Method Blank
 LCS - Laboratory Control Sample
 LCSD - Laboratory Control Sample Duplicate
 MS - Matrix Spike
 MSD - Matrix Spike Duplicate
 LD - Laboratory Duplicate

NA - Not Applicable
 ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
 MS, MSD Percent Rec. = ((Result - Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) * 100.
 MS, MSD Relative Percent Diff. = ((|MS - MSD|) / ((MS + MSD)/2.0)) * 100.
 LD Relative Percent Diff. = ((|Parent - LD|) / ((Parent + LD)/2.0)) * 100

06T-0501-01, 02

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: DM Driggers		Company Contact: Dennis A. Pitts and Henry W. Ruby		Telephone No.: 531-1229		Project Coordinator: Joan H. Kasper		Data Transmitted: 570	
Payroll #: 73974		Sampling Location: 303M		SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R303M0J4S1		SAF No.: RC-001			
Type of Sample: Be, Cd, Pb		Wipe Sample Media: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		ANALYSIS METHOD (SPECIFIC): Niosh 7300		Method of Storage: Fid Ex			
Shipped To: Data Chem		Other: <input type="checkbox"/>				Bill of Lading/Air Bill No.: 8544 9435 4760			
PHYSIBLE SAMPLE HAZARD/REMARKS: Be, Cd, Pb		MATRIX: A - AIR W1 - WIPE X - OTHER		Preservation (i.e., cooling required, etc.):					
Special Handling and/or Storage: NA									

SAMPLE ANALYSIS												
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (sq. in.)	Comments	Ashes/Ashes	Lead Ashes	Beryllium Ashes	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Ashes
J115Y8	A	2-8-06	273	NA		X	X	X				X
J115Y9	A		NA	Blank		X	X					X
J11600	A		NA	Blank		X	X					X
J11601	W1		X	NA				X				
J11602	W1		X	NA				X				
J11603	W1		NA	Blank				X				
J11604	W1	2-8-06	NA	Blank				X				
				Blank								
				Blank								

WCH-SH-302 (11/29/2005)

Enter on line below the first Sample Number from Page One:

711548

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME		DATE / TIME	
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
D. M. Dwyer / DM Dwyer	2-9-06 / 1542	Locked Cabinet room 9	3796 2-9-06 / 1612
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
C. M. Williams	2-9-06 / 1440	R2 Steffler	2-9-06 / 1440
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
3746 B1015 locks locked cabinet	2-9-06 / 1440	Fed Ex	
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
R2 Steffler	2-9-06 / 1440	Heather Thompson	2-10-06 / 1030
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
Fed Ex	2-10-06 / 1030		
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
Heather Thompson	2-10-06 / 1030		
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
Receives By / Initials	DATE / TIME	Received By / Initials	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

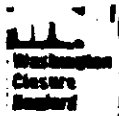
REVIEWED BY:

Heather Thompson

DATE: 2-10-06

WCH-SH-302 (08/24/2005)

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: DM Driggers	Company Contact Denise A. Pitts and Henry W. Ruby	Telephone No. 531-1229	Project Coordinator Joan H. Kessner	Data Turnaround STD								
Payroll #: 73974	Sampling Location 303M	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303M0J4S1	SAF No. RC-001									
Type of Sample: Be, Cd, Pb		ANALYSIS METHOD (SPECIFIC): Niosh 7300	Method of Shipment Fed Ex									
Shipped To: Data Chem Utah	Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other		Bill of Lading/Air Bill No. 8544 9435 4760									
POSSIBLE SAMPLE HAZARD/RI MARKS Be, Cd, Pb	MATRIX A - AIR WI - WIPE X - OTHER	Preservation (i.e., cooling required, etc.)	No	No	No	No	No	No	No	No	No	No
Special Handling and/or Storage NA												
SAMPLE ANALYSIS					Ashesos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area <u>100</u> cm ²	Comments								
J115Y8	A	2-8-06	273	NA		X	X					X
J115Y9	A		NA	Blank		X	X					X
J11600	A		NA	Blank		X	X					X
J11601	WI		X	NA				X		X	X	
J11602	WI		X	NA				X		X	X	
J11603	WI		NA	Blank				X				
J11604	WI	2-8-06	NA	Blank								

Enter on line below the first Sample Number from Page One:

J115Y8

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
DM Driggers / DM Driggers	2-8-06 / 1642	Locked Cabinet room 4 3746	2-8-06 / 1642
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
Cynthia Williams		RZ Steffler R.Z. Steffler	2-9-06 / 1444
3746 B106 Emilio locked cabinets	2-9-06 / 1440		
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
RZ Steffler R.Z. Steffler	2-9-06 / 1600	Fed Ex	
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
Received By/Name:	DATE / TIME	Received By/Name:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY:

DATE:

PRINT/SIGN NAME